

What is claimed is:

1. A pre-packaged component device comprising:
a first non-conductive substrate member having an outer surface;
a second non-conductive substrate member having an outer surface;
a first layer of solderable electrically conductive material secured to the outer surface of said first non-conductive substrate member;
a second layer of solderable electrically conductive material secured to the outer surface of said second non-conductive substrate member;
and
lead members and a transistor member positioned between said first and second non-conductive substrate members, said transistor having at least one gate.

2. The component device as recited in claim 1 wherein said first and second non-conductive substrate members are made from a ceramic material.

3. The component device as recited in claim 2 wherein said ceramic material is taken from the group consisting of alumina, aluminum nitride, silicon nitride, and beryllium oxide.

4. The component device as recited in claim 1 wherein said solderable electrically conductive material is a copper material and is direct bonded to said first and second substrate members.

5. The component device as recited in claim 1 wherein said lead members comprise a gate pin, a drain member and a source member.

6. The component device as recited in claim 5 wherein said lead members are stamped from a copper material during manufacture.

7. The component device as recited in claim 1 further comprising a drain pad positioned on the inside surface of said first non-conductive substrate member and a source pad and gate runner positioned on the inside surface of said second non-conductive substrate member.

8. The component device as recited in claim 1 wherein said transistor member is a MOSFET.

9. The component device as recited in claim 1 wherein said transistor member is an IGBT.

10. The component device as recited in claim 1 wherein said component device is a TO220 device.

11. The component device as recited in claim 1 wherein said component device is a high current, high power device.

12. The component device as recited in claim 1 wherein said component device is a power diode with no gate lead.

13. The component device as recited in claim 1 wherein said component devices carry higher current densities than conventional devices.